## What is claimed is:

- A feed formulation for gestating and lactating
- 2 swine comprising carnitine in an amount effective to increase
- 3 at least one of the following: number of pigs per litter,
- 4 litter weaning weight, and pig weaning weight.
- The formulation of claim 1 wherein the carnitine
- 2 is L-carnitine or a salt thereof.
- 1 3. The formulation of claim 1 wherein the amount of
- 2 carnitine is from about 5 to about 5,000 ppm of the feed.
- 1 4. The formulation of claim 1 wherein the amount of
- 2 carnitine is from about 5 to about 200 ppm of the feed.
- 1 5. The formulation of claim 1 further comprising
- 2 from about 12% to about 30% by weight of crude protein.
- 1 6. A method for feeding gestating and lactating
- 2 swine comprising feeding a diet comprising carnitine in an
- 3 amount effective to increase at least one of the following:
- 4 number of pigs per litter, litter weaning weight, and pig
- 5 weaning weight.
- 7. The method of claim 6 wherein the carnitine is
- 2 L-carnitine or a salt thereof.
- 1 8. The method of claim 6 wherein the amount of
- 2 carnitine is from about 5 to about 5,000 ppm of the feed.
- 9. The method of claim 6 wherein the amount of
- 2 carnitine is from about 5 to about 200 ppm of the feed.

- 1 10. The method of claim 6 wherein the diet further
- 2 comprises from about 12% to about 30% by weight of crude
- 3 protein.
- 1 11. A method for increasing pork productivity
- 2 comprising the steps of:
- 3 (a) supplementing a swine diet with an effective
- 4 amount of carnitine, and
- 5 (b) feeding the supplemented diet to swine during
- 6 the period of gestation, lactation or both.
- 1 12. The method of claim 11 wherein the pork
- 2 productivity is increased by increasing at least one of the
- 3 following: number of pigs per litter, litter weaning weight,
- 4 and pig weaning weight.
- 1 13. The method of claim 11 wherein the carnitine is
- 2 L-carnitine or a salt thereof.
- 1 14. The method of claim 11 wherein the effective
- 2 amount of carnitine is from about 5 to about 5,000 ppm of the
- 3 feed.
- 1 15. The method of claim 11 wherein the effective
- 2 amount of carnitine is from about 50 to about 200 ppm of the
- 3 feed.
- 1 16. The method of claim 11 wherein the gestating and
- 2 lactating swine diet comprises from about 12% to about 30% by
- 3 weight of crude protein.